

## Abstract

In a motor driving circuit in which a first NMOS and a second NMOS coupled in series to the final output stage to drive a motor are driven and a common node of the source of the first NMOS and the drain of the second NMOS serves as the final output, the motor driving circuit comprises: a first PMOS and a third NMOS having a common node of drains thereof coupled to the gate of the first NMOS; a second PMOS and a fourth NMOS having a common node of drains thereof coupled to the gate of the third NMOS; one or more PMOSs having drains coupled to the gate of the third NMOS which are turned on to charge the gate capacity of the third NMOS when the final output is low and are turned off when gate capacity of the third NMOS is charged; and one or more NMOSs having drains coupled to the gate of the third NMOS which are turned on to discharge the gate capacity of the third NMOS when the final output is high and are turned off when the gate capacity of the third NMOS is discharged and is characterized in that the gate of the first NMOS is coupled to the final output through a clamp circuit and the source of the third NMOS and the gate of the third NMOS through a clamp circuit are coupled to the final output.